

In The Claims:

Please enter the following amended claims:

C1
11. (Currently Amended) A welding apparatus with welding electrode rollers, an AC welding current source that is selectively connectable to the electrodes by a controllable switch arrangement, and a control device for the switch arrangement, characterized in that:

a means connected to the control device is provided which is triggered by the deflection of at least one of the welding rollers caused by the article passing between the electrode rollers; and a forward edge of an article to be welded entering, or the rear edge of an article exiting, between the welding electrode rollers; and

wherein the control device is configured to receive from the means a signal indicating the edge of the article to be welded has entered between the electrode rollers and in dependence thereon to deliver to the switch arrangement a signal releasing the welding current to the electrode rollers; and

wherein the control device is configured to receive from the means a signal indicating the edge of the article to be welded has exited between the electrode rollers and in dependence thereon to deliver to the switch arrangement a signal to discontinue the welding current to the electrode rollers.

12. Please cancel claim 12. ✓

C2
13. (Currently Amended) A welding apparatus according to Claim 11, characterized in that the means for detecting the deflection comprises a setting arrangement by means of which the response to the position of the leading edge of the article to be welded is adaptable to the thickness of the article.

14. (Currently Amended) A welding apparatus ~~according to Claim 13, characterized in that~~ with welding electrode rollers, an AC welding current source that is selectively connectable to the electrodes by a controllable switch arrangement, and a control device for the switch arrangement, characterized in that:

(2) a means connected to the control device is provided which is triggered by a forward edge of an article to be welded entering, or the rear edge of an article exiting, between the welding electrode rollers, wherein the means is configured to detect the deflection of at least one of the welding electrode rollers by the article passing between the electrodes, the means including a setting arrangement by means of which the response to the position of the leading edge of the article to be welded is adaptable to the thickness of the article;

wherein the control device is configured to receive from the means a signal indicating the edge of the article to be welded has entered between the electrode rollers and in dependence thereon to deliver to the switch arrangement a signal releasing the welding current to the electrode rollers;

wherein the control device is configured to receive from the means a signal indicating the edge of the article to be welded has exited between the electrode rollers and in dependence thereon to deliver to the switch arrangement a signal to discontinue the welding current to the electrode rollers; and

wherein the setting arrangement has a disk with a plurality of regions of different thickness in a predetermined proportion to the thickness of the articles to be welded.

15. (Previously Amended) A welding apparatus according to Claim 14, characterized in that the disk is rotatably arranged, and the regions are recesses of different depth in the disk which are preferably each marked with the corresponding thickness of the article to be welded.

19. (Currently Amended) An apparatus for welding sheet metal articles, comprising:

at least two electrode rollers;

a welding current source;

a controllable switch arrangement for selectively providing welding current from the welding current source to the at least two electrodes; and

a switch means for signaling the presence of one of the sheet metal articles between the electrode rollers, wherein the switch means is triggered by the deflection of at least one of the electrode rollers by the article passing between the rollers, and the switch means has a first signal output when one of the sheet metal articles is disposed between the electrode rollers, and a second signal output when none of the sheet metal articles are disposed between the electrodes;

wherein the switch means changes from the second signal output to the first signal output when an edge of the sheet metal article is disposed between the electrode rollers.

20. (Original) The apparatus of claim 19, wherein the switch means includes a pivotally mounted arm for mounting one of the at least two electrode rollers, wherein inserting the edge of the sheet metal article to be welded causes the arm and mounted roller to pivot away from another of the at least two electrode rollers.

21. (Previously Added) A welding apparatus according to claim 11, further comprising intermediate wire electrodes, wherein upon receipt of the signal indicating the edge of the article to be welded has entered between the electrode rollers, the control device delivers to the switch arrangement a signal to release the welding current to the intermediate wire electrodes; and

wherein upon receipt of the signal indicating the edge of the article to be welded has exited between the electrode rollers, the control device delivers to the switch arrangement a signal to discontinue the welding current to the intermediate wire electrodes.

Please add new claims 22 - 23:

--22. (New) An apparatus as is claim 11 wherein the control device switches the welding current to the electrode rollers only when the voltage/current is passing through zero.

c4

23. (New) An apparatus as in claim 19 wherein the switch means switches the welding current to the electrode rollers only when the voltage/current is passing through zero.--
